Southern Forest Pest Reporter

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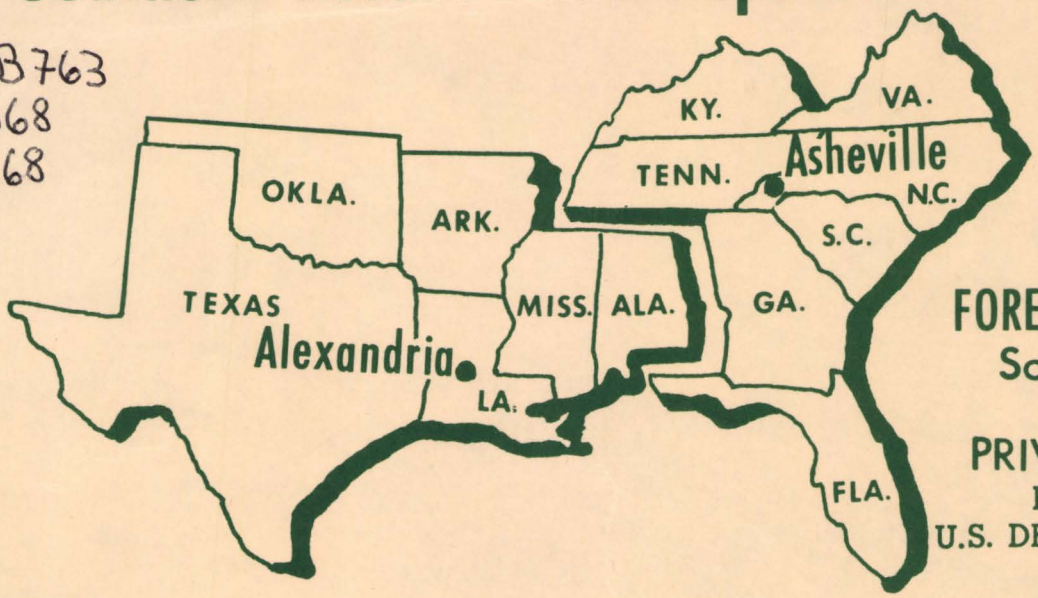

DIVISION OF
FOREST PEST CONTROL
Southeastern Area
STATE AND
PRIVATE FORESTRY
FOREST SERVICE
U.S. DEPT OF AGRICULTURE

FIELD OFFICES
Asheville, N.C.–Alexandria, La.

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SUMMARY OF CONDITIONS

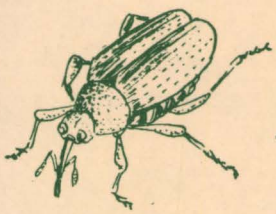
... Localized infestations of southern pine beetle have been found on industry lands near Berlin, Arkansas. This is the first report of southern pine beetle in Arkansas since the early 1900's.

... The current southern pine beetle infestation in southeast Texas covers a gross area of six million acres. Infestations are continuing at high levels on the Angelina and Sabine National Forests.

... Emphasis in the entire Area for southern pine beetle infestations is being placed on rapid removal of infested trees by commercial sales.

... Pine sawfly activity has increased in some areas over previous years. This year sawfly defoliation has been detected in Alabama, Arkansas, Florida, Kentucky, North Carolina, Tennessee and Virginia.

... Defoliation by the forest tent caterpillar is present on more than 42,000 acres in southern Alabama and on more than 90,000 acres in southern Louisiana.



... Re-examination of permanent observation plots on the Cumberland Plateau in eastern Tennessee showed an increase in comandra blister rust infection and accompanying mortality.

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STATUS OF FOREST INSECTS

SOUTHERN PINE BEETLE, Dendroctonus frontalis, Zimm.

ALABAMA

Southern pine beetle infestations are continuing at a moderate level on the William B. Bankhead National Forest in northwestern Alabama. A survey completed in February revealed an infestation level of 5.43 infested trees per M acres host type. Brood densities are currently 166 insects per ft^2 of bark surface and the ratio of increase is 1:2.5 which is considered somewhat low for this time of year.

Increased southern pine beetle activity was reported from the Oakmulgee Division of the Talladega National Forest. A subsequent survey revealed an infestation level of 2.24 infested trees per M acres and a ratio of increase of 1:4.7.

ARKANSAS

A detection survey of Ashley County conducted jointly by the Arkansas Forestry Commission and the U. S. Forest Service revealed localized infestations of the southern pine beetle on industry lands near Berlin. This is the first report of southern pine beetle in Arkansas since the early 1900's.

GEORGIA

Surveys for southern pine beetle on the Tallulah and Chattooga Districts of the Chattahoochee National Forest have revealed that activity has further decreased from the relatively low level of last year.

LOUISIANA

Localized infestations are continuing in Morehouse Parish near Bastrop. Infested trees are being removed by commercial sales.

Activity is also continuing in east central Louisiana. A 5 acre infestation was detected in the Sicily Island Hills in Catahoula Parish (Louisiana Forestry Commission). A recent evaluation of infestations in this area indicated a level of 9.24 infested trees per M acres host type, a brood density of 400 insects per ft^2 of bark surface and a ratio of increase of 1:5.9. These data indicate a potential for continued activity this summer.

Southern pine beetle activity was reported on the Evangeline and Vernon Districts of the Kisatchie National Forest for the first time. Follow-up surveys indicated that endemic populations and high brood densities exist on both districts. An indication of a potential buildup was observed on the Evangeline District.

LOUISIANA (Cont'd)

Populations are continuing at epidemic levels in Allen Parish. An evaluation made in late February and early March revealed an infestation level of 2.21 trees per M acres host type. Brood density and ratio of increase were relatively low, 166 insects per ft^2 and 1:2.6 respectively.

MISSISSIPPI

Southern pine beetle activity is continuing at an endemic level on the Homochitto National Forest and private lands in southwestern Mississippi. Infested trees are being removed by commercial sales. Most of the area damaged by a tornado in January has been salvaged with no reported increase in southern pine beetle activity.

NORTH CAROLINA

A spring survey of eastern North Carolina indicated that southern pine beetle will continue to be the major pest problem in 1969. Severe damage was reported in Wake, Rutherford, Lincoln, Onslow, Davidson, Iredell, Yadkin, Davie and Rowan Counties. (North Carolina Forest Service) A biological evaluation in nine counties of eastern North Carolina conducted cooperatively by the N. C. Division of Forestry and the Division of Forest Pest Control revealed moderately high overwintering beetle brood densities. This potential in conjunction with a continuation of present drought conditions could result in extensive summer and fall damage.

Surveys during May of the Tusquitee and Cheoah Ranger Districts of the Nantahala National Forest in western North Carolina revealed a decrease in southern pine beetle activity. The two districts have since June, 1968, salvaged 165 MBF and piled and burned over 5,000 infested trees. Although the number of spots established last fall remain moderately high, actively infested trees and rate of spread within these spots is low. Heavy mortality of overwintering broods was noted in many of the spots established last fall. The new spots established this spring were relatively few in number but all contained active beetle brood with densities averaging 84 insects per square foot. A potentially explosive situation exists on these areas for the ensuing summer and fall.

The Great Smoky Mountains National Park continues to incur heavy losses (estimated at 387 trees per M acres) although at a reduced level from that reported during the summer of 1968.

NORTH CAROLINA (Cont'd)

Cause for this reduction was partial mortality of overwintering brood which was observed in a majority of the red and fading trees attacked last fall.

A late winter survey for bark beetle activity on the Croatan National Forest revealed low populations of the southern pine beetle. Since populations during the past five years have been relatively non-existent, the present occurrence although low represents an increased level of activity.

SOUTH CAROLINA

Southern pine beetle populations continue to remain at an endemic level on the Long Cane, Tyger and Enoree Districts, Sumter National Forest. A May, 1969 survey of the Andrew Pickens District, where moderate levels of beetle were active last fall, revealed a decrease in beetle activity. Southern pine beetle activity on the Francis Marion National Forest also continues to remain at a very low level.

TENNESSEE

An outbreak of southern pine beetle detected in December of 1968 on the Tellico District of the Cherokee National Forest has decreased in intensity. Although the number of red and fading trees per M acres in May, 1969 was a relatively high 52.4 ± 11.5 trees, actively infested trees amounted to less than one per M acres.

Southern pine beetle activity on the Atomic Energy Commission Reservation at Oak Ridge is increasing. The intensity of infestation is estimated at 11 ± 6 trees per M acres of host type.

TEXAS

The area of southern pine beetle infestation in southeast Texas has spread north and west and currently encompasses a gross area of 6 million acres. However, the number of spots detected during April and May are slightly below 1968 levels (Texas Forest Service).

Infestations are continuing at high levels on the Angelina and Sabine National Forests. Appraisal surveys conducted during March revealed a level of 26.6 infested trees per M acres host type on the Angelina National Forest and 16 trees per M acres host type on the Sabine National Forest. Brood densities and ratios of increase are high, indicating a potential for continued epidemic conditions. Isolated infestations were detected on the Raven District of the Sam Houston National Forest and the Neches and Trinity Districts of the Davy Crockett National Forest.

SOUTHERN PINE BEETLE (Cont'd)

TEXAS (Cont'd)

Emphasis is being placed on rapid removal of infested trees by commercial sales on all southern pine beetle infestations in southeast Texas.

VIRGINIA

The southern pine beetle at present is at a relatively low population density in the Mecklenburg - Halifax Counties area but on an upwing in Campbell County. Prince George, Surry and Louisa Counties show low populations (Virginia Division of Forestry).

IPS ENGRAVER BEETLES, Ips spp.

FLORIDA

Surveys of the National Forests in Florida showed Ips populations to be low. Winter rainfall and efficient salvage operations are cited as being responsible for the decrease.

MISSISSIPPI

All three species of Ips engraver beetles were invading tornado damaged timber on the Homochitto and Bienville National Forests. Approximately 5 to 6 million board feet of timber were destroyed by a tornado which occurred in late January. Most of the damaged timber has been salvaged to recover values and prevent a buildup of Ips populations.

NORTH and SOUTH CAROLINA

Severe damage to forest areas by ice was caused in an eight county area of north central South Carolina and a three county area of south central North Carolina during a storm in mid-February, 1969. The most extensive damage occurred in South Carolina where an estimated 60 million dollars worth of timber was damaged. Observation plots have been established by state personnel in storm damaged areas of both states to detect early incidence of Ips in damaged and residual trees. No serious Ips outbreaks have been observed to date.

TENNESSEE

A wind storm on the Tellico and Ocoee Districts of the Cherokee National Forest resulted in damage to an estimated six million board feet of timber. The damage occurred in both pine and hardwoods. To date, no Ips outbreaks have occurred in the residual pine. Damage from the same windstorm also occurred in the Great Smoky Mountains National Park near Gatlinburg. Damage here was restricted primarily to hardwood species and no insect problems are contemplated.

PINE SAWFLIES, *Neodiprion spp.*

ALABAMA

A pine sawfly, tentatively identified as *Neodiprion excitans* caused scattered defoliation of pulpwood and sawtimber size loblolly pine over approximately 1,000 acres in Walker County in northwestern Alabama. A second species of pine sawfly, *Neodiprion taedae linearis* was associated with this insect.

The sawfly, *Neodiprion taedae linearis*, defoliated loblolly pine stands in isolated areas in Limestone County. Heavy mortality of late instar larvae, probably due to a polyhedral virus, was observed in the defoliated areas. This is believed to be the first report of *Neodiprion taedae linearis* in Alabama.

ARKANSAS

The pine sawfly, *Neodiprion taedae linearis* infestations increased slightly over 1968 levels (Arkansas Forest Pest Report). Light to moderate defoliation was observed east of Camden.

FLORIDA

Chemical control of red-headed pine sawfly, *N. lecontei* (Fitch) was obtained in a plantation of one-year-old slash pine in Taylor County, Florida. Approximately 900 acres of private lands were aerially sprayed with Baygon during April, 1969. (Florida Forest Service).

KENTUCKY

Heavy defoliation caused by the Virginia pine sawfly, *N. pratti pratti* was evident in mature shortleaf pine, *Pinus echinata* in scattered locations on the London Ranger District, Daniel Boone National Forest. This insect is present over much of the Daniel Boone National Forest.

Virginia pine sawfly activity has been noted throughout the state. Infestations have been particularly heavy in the eastern and southeastern portion of the state (Kentucky Division of Forestry).

NORTH CAROLINA

Neodiprion excitans Roh. continues to cause damage over three thousand acres of loblolly pine in Pasquotank County. This sawfly has now been detected in additional loblolly plantations of the same county. Surveys are currently underway to determine the extent of these infestations (North Carolina Division of Forestry).

Sawflies, tentatively identified as the Virginia pine sawfly, *N. pratti pratti* Dyar, have been detected over moderately large areas in Randolph, Alamance, Vance, Franklin, and Orange Counties. Positive identification and extent of damage are currently being determined (N. C. Division of Forestry).

PINE SAWFLIES (Cont'd)

TENNESSEE — Sawflies tentatively identified as the Arkansas sawfly, N. taedae linearis Ross. have been detected in scattered loblolly plantations and single trees throughout the western portion of the state. Extent of damage to individual plantations ranged from negligible to extreme (Tennessee Division of Forestry).

VIRGINIA — The Virginia pine sawfly (N. pratti pratti) reached the highest populations this past spring since its low point in 1962 after the epidemic in the Piedmont and Coastal Plain in 1959-1961.

FOREST TENT CATERPILLAR, Malacasoma disstria Hbn.

ALABAMA — The forest tent caterpillar defoliated a gross area of 42,475 acres of bottomland hardwoods in the Mobile and Tensaw River bottoms of southwestern Alabama. A total of 26,850 acres of water tupelo was completely defoliated.

FLORIDA — The forest tent caterpillar, Malacosoma disstria Hbn. was responsible for moderate defoliation in west central Florida. Control action was not deemed necessary (Florida Forest Service).

KENTUCKY — Over three hundred acres of oak-hickory type have been defoliated by the forest tent caterpillar, Malacosoma disstria Hbn. in McLean and Hopkins Counties. An aerial survey revealed that the majority of defoliation is contained in two areas of river bottom land (Kentucky Division of Forestry).

LOUISIANA — Some 80,000 acres of bottomland hardwood were defoliated in the vicinity of Morgan City in the southern part of the state by the forest tent caterpillar. A second area of infestation, encompassing approximately 10,000 acres of bottomland hardwoods was detected in the Mermentau River basin near Jennings and Lake Arthur.

A WEEVIL, Pissodes nemorensis Germ.

LOUISIANA
MISSISSIPPI
TEXAS — Widespread killing of leaders of young open grown loblolly pines was observed over a three state area. In Louisiana this damage was observed near Shreveport and in Natchitoches Parish. Locally severe damage was observed in the vicinity of Meridian, Mississippi. The heaviest infestations were reported in Angelina County, Texas where trees up to 50 ft. tall were killed by adult feeding injury. Leader killing was also observed in the vicinity of Conroe, Texas.

LEAF MINING WEEVIL, Odontopus calceatus

LOUISIANA — This leaf mining weevil has damaged magnolia, magnolia grandiflora in the vicinity of Pineville, Louisiana. This is believed to be the first record of the occurrence of this species west of the Mississippi River.

FALL CANKERWORM, Alsophila pometaria (Harr.)

NORTH CAROLINA — An egg mass survey for the fall cankerworm on the Coweeta Hydrological Laboratory in Macon County revealed that negligible damage will occur during 1969.

On the adjoining Wayah District of the Nantahala National Forest, heavy defoliation of oak and hickory is predicted over 150-200 acres.

VIRGINIA — Fall cankerworm and linden looper were controlled on a 90-acre area of mixed oak in Prince William County using Gardona insecticide (4 pounds, 1 gallon in oil). Rates of one quart and one pint per acre both appear to have done an excellent job. (Virginia Division of Forestry)

A BEETLE, Pachystethus oblivia (Hom.)

GEORGIA FLORIDA — Pachystethus oblivia (Hom.) a beetle in the family Scarabaeidae common in the northeastern states has been found defoliating new growth of slash pine, Pinus elliottii Engelm. in plantations over an eight county area in southwest Georgia and northeast Florida. Feeding has been confined to needles only.

STATUS OF FOREST DISEASES

COMANDRA BLISTER RUST, Cronartium comandrae Pk.

ARKANSAS OKLAHOMA — Results of a comandra blister rust detection survey in shortleaf pine stands on the Ouachita National Forest revealed that the disease is present on the Fourche Ranger District. None was detected on the remaining Districts.

TENNESSEE — Recent re-examination of 40 comandra rust permanent observation plots on the Cumberland Plateau in eastern Tennessee showed an increase in both C. comandrae infection and associated mortality since 1968. Incidence of infection increased from 12.5 percent in 1968 to 14.5 percent in 1969. Rust caused mortality increased from four percent in 1968 to 5.5 percent in 1969. Disease spread per plot varied from zero to over 100 percent.

WHITE PINE BLISTER RUST, Cronartium ribicola Fischer

TENNESSEE NORTH CAROLINA — An evaluation of white pine blister rust and white pine stand conditions was begun on the Great Smoky Mountains National Park, April 28. Preliminary results of this evaluation showed a widespread distribution of ribes above 3,000 feet elevation. Natural white pine stands are very scattered over the Park, however, and the two alternate hosts were found in association in only one area. Four infected pines and a very heavy population of ribes were found on the southwest upper slope of Mount Sterling at approximately 4,500 - 5,000 feet elevation. All infection on these 30 to 40 year old pines occurred on branches. One tree had 50 or more fruiting (aecial stage) branch cankers, some dating back ten or more years.

ANNOSUS ROOT ROT, Fomes annosus (Fr.) Cke.

VIRGINIA — Severe Fomes annosus infection and mortality has been observed in two shortleaf pine plantations on the Newcastle Ranger District, Jefferson National Forest. A limited survey revealed approximately 25% mortality in one 34-acre plantation and 15-20% in the other. All dead trees examined had F. annosus conks at their base. The two affected 30-year-old plantations were thinned in 1959. The Forest is planning to clear cut the 34-acre stand with the estimated 25% mortality.

NEEDLE CAST, Hypoderma lethale Dearn.

ARKANSAS LOUISIANA and MISSISSIPPI — Needlecast infection has been exceptionally heavy on slash and loblolly pine.

GEORGIA — Needlecast has been very heavy on loblolly pine in the vicinity of Atlanta.

NEEDLE RUST, Coleosporium spp.

ARKANSAS — Needle rust infection has been heavy on shortleaf pine in the southern half of Arkansas.

PITCH CANKER, Fusarium lateritium F. pini Hepting

FLORIDA — A 10-year-old slash pine plantation in Union County, Florida is heavily infected (50%) with pitch canker. (Florida Forest Service.

WINTERKILL

ARKANSAS
OKLAHOMA

Light to heavy winterkill damage of shortleaf pine was detected on nearly all mountains and ridges of the Ouachita N. F. that exceed 2000' in altitude. Damage was confined primarily to the needles with no significant timber losses expected and only temporary aesthetic value losses.

VIRGINIA

A severe ice storm which struck the Blue Ridge Parkway and adjoining ridge-tops caused spectacular damage in scattered areas through Nelson and Greene Counties. Most of the damage occurred to hardwood species. Damaged residual trees will be extremely susceptible to diseases, especially the rots.

Fig. 1-4 Forest insect damage. 1. Feeding injury in loblolly pine leader by Pissodes nemorensis. Light colored needles (arrows) have turned red due to adult feeding. 2. Young loblolly pine completely defoliated by the red headed pine sawfly Neodiprion lecontei near Houston, Texas. 3. Heavy defoliation of water tupelo by the forest tent caterpillar in southwestern Alabama. 4. Mature larvae of the forest tent caterpillar.

More detailed information can be obtained by writing to The Forest Pest Control Division Field Offices listed below or to the Atlanta Office:

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Asheville Office Amel E. Landgraf Zone Supervisor U. S. Forest Service Div. of Forest Pest Control Post Office Box 5895 Asheville, North Carolina 28803 Phone: (704) 254-0961 Ext. 625	Florida Georgia Kentucky North Carolina South Carolina Tennessee Virginia
Alexandria Office William M. Ciesla Zone Supervisor U. S. Forest Service Div. of Forest Pest Control 2500 Shreveport Highway Pineville, Louisiana 71360 Phone: (318) 445-6511 Ext. 311	Alabama Arkansas Louisiana Mississippi Oklahoma Texas

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